

WHAT IS CLAIMED IS:

1 ~~Sub 1~~ An isolated nucleic acid molecule comprising an *OsEMF1*  
2 polynucleotide sequence, which polynucleotide sequence specifically hybridizes to SEQ  
3 ID NO:1 under stringent conditions.

1 2. The isolated nucleic acid molecule of claim 1, wherein the  
2 *OsEMF1* polynucleotide is at least about 100 nucleotides in length.

1 ~~Sub 2~~ 3. The isolated nucleic acid molecule of claim 1, wherein the  
2 *OsEMF1* polynucleotide is SEQ ID NO:1.

1 4. The isolated nucleic acid molecule of claim 1, further comprising a  
2 plant promoter operably linked to the *OsEMF1* polynucleotide.

1 5. The isolated nucleic acid molecule of claim 4, wherein the plant  
2 promoter is from a *OsEMF1* gene.

1 ~~Sub 3~~ 6. The isolated nucleic acid of claim 5, wherein the *OsEMF1*  
2 polynucleotide is linked to the promoter in an antisense orientation.

1 7. An isolated nucleic acid molecule comprising an *OsEMF1*  
2 polynucleotide sequence, which polynucleotide sequence encodes an *OsEMF1*  
3 polypeptide as shown in SEQ ID NO:2.

1 8. A transgenic plant comprising an expression cassette containing a  
2 plant promoter operably linked to a heterologous *OsEMF1* polynucleotide of claim 1.

1 9. The transgenic plant of claim 8, wherein the heterologous *OsEMF1*  
2 polynucleotide encodes a *OsEMF1* polypeptide.

1 ~~Sub 4~~ 10. The transgenic plant of claim 9, wherein the *OsEMF1* polypeptide  
2 is as shown in SEQ ID NO:2.

1 11. The transgenic plant of claim 8, wherein the heterologous *OsEMF1*  
2 polynucleotide is linked to the promoter in an antisense orientation.

1 12. The transgenic plant of claim 8, wherein the plant promoter is from  
2 an *OsEMF1* gene.

1                   13.        ~~The~~ transgenic plant of claim 12, wherein the *OsEMF1* gene is as  
2       shown in SEQ ID NO:1.

1                   14.        A method of modulating reproductive development in a plant, the  
2       method comprising introducing into the plant an expression cassette containing a plant  
3       promoter operably linked to a heterologous *OsEMF1* polynucleotide.

1                   15.        The method of claim 14, wherein the heterologous *OsEMF1*  
2       polynucleotide encodes an *OsEMF1* polypeptide.

1                   16.        The method of claim 15, wherein the *OsEMF1* polypeptide has an  
2       amino acid sequence as shown in SEQ ID NO:2.

1                   17.        The method of claim 14, wherein the heterologous *OsEMF1*  
2       polynucleotide is linked to the promoter in an antisense orientation.

1                   18.        The method of claim 14, wherein the heterologous *OsEMF1*  
2       polynucleotide is SEQ ID NO:1.

1                   19.        The method of claim 14, wherein the plant promoter is from a  
2       *OsEMF1* gene.

1                   20.        The method of claim 14, wherein the expression cassette is  
2       introduced into the plant through a sexual cross.

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